

Good Morning 543

The Daily Paper of the Submarine Branch
With the co-operation of the Office of Admiral (Submarines)

HUSH-HUSH HURRICANE

Before a new bomber or fighter takes the air it is tested for anything up to 10,000 hours in this marvellous wind tunnel described by FRANK STUART

YOU and I know quite a lot about the Hurricane. But this is a new kind of 700 m.p.h. hush-hush hurricane, with a

motor close upon 20,000 horsepower!

This hurricane, of which I write, is an artificial wind produced in an aircraft-testing wind-tunnel.

When you acclaim a new type of bomber or fighter, it is new to you, but probably it has spent anything up to 10,000 hours in such a tunnel.

A perfect scale model of a proposed new machine is built, with a wingspan of from five to ten feet. This is balanced on delicate supports in the throat of the wind-tunnel.

The world's biggest experimental motor then starts up, and if you have not got your ear-plugs in, you run and get them. The motor drives a fan with wood or metal blades, each one bigger than a man, weighing anything up to eight tons.

Air is scooped up and led over two banks of vanes which set it spinning. It is then played on to the main fan, which, rotating in the opposite direction, thrashes it straight and sends it off down the tunnel at high speed.

If the vanes did not do their preliminary job, air off the great fan would travel forward like a bullet, and the model in the tunnel throat would be torn to bits.

In a big tunnel, the artificial hurricane is crammed through an enormous honeycomb of close vanes more than 30 feet high, round a right-angled corner, along a second straight, and round a second corner, through another set of vanes, after which it enters the bell-mouth of the tunnel.

On these vanes, which are water-cooled to reduce the feverish temperature of frictionised almost-boiling air, are various types of experimental greases, under test to discover which will filter most of the dust from it.

Before entering the bell-mouth, the hot gust passes an air interchanger, which sucks out about 15 per cent. of the frictionised air, replacing it with cold air.

The bell-mouth of the tunnel

We ALWAYS write to you, if you write first to "Good Morning," c/o Press Division, Admiralty, London, S.W.1

narrows sharply into a throat, where the model poises on its quivering springs. Into this throat air pours at enormously increased speed, owing to the sudden compression.

Here it reaches anything up to 700 miles per hour, just short of the speed of sound.

If a 700 m.p.h. wind hits an aircraft, the effects are the same as if the machine were travelling at 700 m.p.h. in still air. Experts stand outside the curved metal outer wall, and through terrifically thick glass portholes they watch the model under test.

A control-board covered with lights, switches and recorder-printers, at which other experts sit, controls the experiments and takes down electrically-recorded results.

Balances under the suspended model measure lift, drag, pitch, roll, effective ceiling, stability, control and cooling systems. Very high speed, coupled with high altitude causes air shocks known as "compressibility burble." This makes drastic changes in lift, drag, and flying qualities.

It has been discovered in wind tunnels that existing aircraft, when they reach speeds approximating to that of sound (750 m.p.h.) break up as if they had flown into mountainside.

That means that in the jet-propelled and other top-speed aircraft of the almost immediate future, completely new designs of wind, airscrews (if used) and fuselage may be needed.

Meanwhile, the Big Wind is still on its way—just coming out of the throat, in fact. You might think, now the testing of the aircraft is done, that the wind-men can call it a day. By no means! Wind can fairly easily be compressed and accelerated; but when the tunnel it is in widens again, the most awful cyclones and mad whirls may result. So the tunnel is slowly widened on scientific principles until the air can safely be led through the double banks of vanes at the beginning and on to the fan again.

When these high-power tunnels are set up, siting them is a headache. The rumble of aircraft-works' trucks, railway trains, steam-hammers in the works, or the landing-bump of big machines half a mile away, might set up ground vibration enough to shatter the tunnel when the Big Wind was working at top speed inside it; and, at any rate, would probably upset the delicate testing balances.

The most infinite precautions, too, have to be taken to make the inside of the tunnel as smooth as glass.

Any roughness can create a "ripple" in the tame blast that would turn it into a wild beast intent on tearing the £5,000 model aircraft apart.

To prepare the way for a tunnel to test aircraft, a junior tunnel to test the tunnel is usually built, exactly to scale, with an apparatus for raising a young-brother breeze perhaps up to 400 miles per hour. Actually, it sounds quite a capful of wind when you hear it going round!

Not only do wind tunnels save the lives of test pilots, by demonstrating the major wickednesses of a new type of bomber or fighter without a man aboard, but they provide the wonderland where the 100-tonner passenger liners and air freighters of to-morrow are even now being put through their paces, ready for service later.

Picture for A.B. Willis Charlesworth

A.B. WILLIS CHARLESWORTH, of The Royd, Deepcar, Sheffield—here, we think, is a picture in which you will be interested—that of Miss Jose Gibbons, of 5, Chambers Avenue, Conanby, Conisborough, Yorks.

She sends all her good wishes and asks "Good Morning" to say that she enjoyed every minute of the day she spent with you before you returned from leave.

Miss Gibbons is as busy as ever at the munition works, and in her spare time, if any, she is doing some embroidery for her sister.

She told us that she did not make a good picture.

Well, we leave it for you to decide whether in the past she has been misled on this point.



You share this castle for two, Sub.-Lieut. Thomas S. Hicks

WE aren't going to guess what you will say when you see this lovely picture of a June bride, Sub-Lieutenant Thomas Samuel Hicks.

It was taken specially for you by "Good Morning's" own photographer and your wife declares you will say, "Good Lord, that grin again!" when you see it. But the smile is far too charming to evoke such a remark, even from a husband.

We found Mrs. Tom Hicks housed at 25, Shakespeare Street, Barrow-in-Furness, adorning a black satin cushion cover with sprays of pink flowers and green foliage. It is one of many other pretty things she has made in her silent hours while you have been ploughing the mighty main.

One day you will find them all in a little cottage Mrs. Hicks has built up in her imagination for two young people who have a whole lifetime of happiness to look forward to.

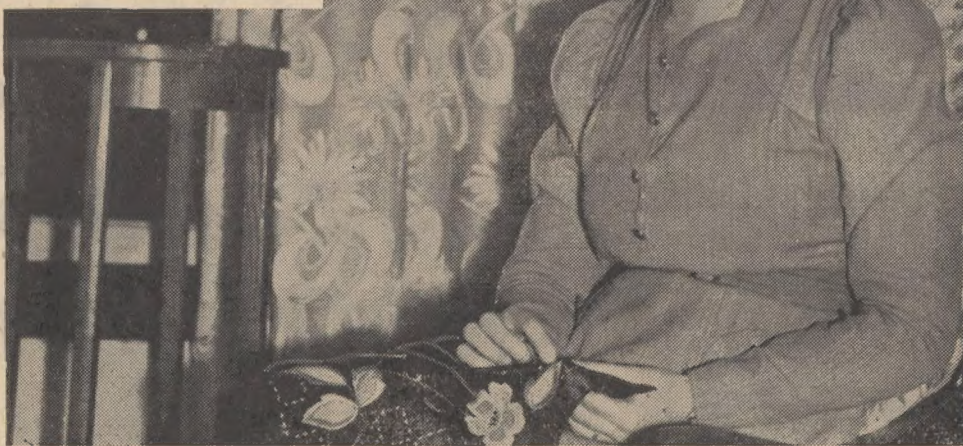
She's got it furnished, too, in fancy, and now she is busy with the artistic arrangement of the little things that will put the finishing touch of beauty to a castle for two.

Maybe that little cottage will be in Cornwall, where your home is, Tom, with windows looking out upon the sea and roses round the door. But your wife doesn't mind even if it's in Wigan or Wandsworth, as long as you are there.

We asked for a message for you. "Tell him I'm glad he's well again, after his recent indisposition," she said, "and I am keeping myself occupied by concentrating on getting our home together."

That's it, Tom. "Concentrating" is the word. Mrs. Hicks dreams of nothing else but a home of her own—with a guy she believes is the best in the world.

One day her dreams will come true!



Joan is Plotting for you, E.R.A. HAROLD HARDING

CALLING E.R.A. Harold Harding.

When the photographer and myself called to see your fiancée, Leading Aircraft Woman Joan Pirrie, we had to go to the Headquarters of a R.A.F. Bomber Group, and, after passing the guards, found Joan busy at her work of secretary to the Air Staff Officer.

At least, she should have been busy at her job, but when we looked over her shoulders we saw it was a letter to you she was writing.

You see, she had just received

the telegram you had sent her, and, as this was the first time she had heard from you for more than three months, you can guess how glad she was to learn that you were still safe.

She misses you terribly and worries about you very much. We called to see her a day too early, for if we had been twenty-four hours later we should have seen her not as a L.A.C.W., but as a corporal—for at long last she has obtained her "tapes."

For some time Joan has been trying to get into the Opera-

tional Room of the Group where she helps plot the boys out to their targets and back again.

"I'd feel that I would be in it more like Harold," she told me, and now her wishes have come true, for shortly she is to go on a course which will train her for this work.

She asked me to tell you that through certain sources she knows that you have been seeing things, and hopes you are keeping well and happy.

She saw your mother and Father at 1, Benwell Grange



Avenue, Newcastle-upon-Tyne, when she was last on leave.

"Mother and Father are quite well, Harold," she said, "and I shall spend a few days with them at the New Year. We will be thinking of you."

And here's Joan's special message to you.

"I miss you a lot and love you more than ever."

All's well at home, Harold—Good Huntin'.

I get around

RON RICHARDS'

COLUMN



MORE letters ask about post-war farming and the prospects, so at the risk of repeating myself I give extracts from various trade journals and reports:—

What are the chances of would-be farmers? To-day, farms are dear, and small-holdings are almost unobtainable at an economic figure.

But when this war is over, many of the barley profiteers will sell out. They do not belong to farming, and they will not stay farming.

After the war many of these farms may be divided up into smallholdings. Purchasers will be wise to check up on the land fertility. Many beginners purchase their holding and are left without sufficient capital to stock their farm. They then mortgage the farm, and from that step descend into that hell of worry which is endless debt.

There are various ways of obtaining a mortgage—through a bank, by personal security, through an agricultural mortgage firm, or a friendly loan from landlord or neighbour.

If the smallholder must borrow, he is best advised to go to his landlord or a neighbouring farmer with whom he may arrange terms which are a just charge.

His neighbour might even let him have three or four cows on the terms that the smallholder returns bullocks of a similar age and quality within, say, three years, and in return rears a calf for the vendor. Such terms avoid the rise and fall in the value of stock.

★

ASSUMING that the prospective smallholder has capital, I would say he requires £40 per acre to buy his land and over £15 per acre to capitalise it.

He will need a tractor, a plough, harrows, trailer, mower, etc.

Many county war agricultural executive committees have their pools of implements from which smallholders can draw. When the days of the W.A.E.C.s are over, smallholders' associations should be formed to loan implements to smallholders until they can afford their own. A similar idea might be worked out for livestock, for the beginner will need good breeding stock to build up his fertility and dairy herd.

The beginner must study markets and labour. It is no use producing a crop unless you can get it to market. And the only alternative to every smallholder owning his own lorry is some co-operative scheme of collection.

Labour is the most expensive item of all: the employee is paid weekly. This means the beginner must have ready cash—a minimum of £3 5s. per week for every man in his employ. But with good management a family farm only needs the assistance of outside labour at harvest.

★

CASH profit is exceedingly difficult to determine—everything depends on the type of holding, whether it is largely dairying or agriculture, or even horticulture. And for the last-named type of holding the state of the market when you unload your crops is of more importance than anything. Money—and good money—can be made.

Farming, especially small farming, is the nearest approach to slavery that a man will voluntarily submit to. For it is an occupation which, once started, proceeds on its own momentum and gradually carries the farmer into the folds of its own routine.

If he likes farming, this routine, the feeding of stock (with no Bank Holidays), the chase after the weather, can become a leisured pleasure; if he is not a farmer at heart, it quickly becomes a tyranny.

★

FED up with grappling with Ministry of Food returns and standing in shop queues, and faced with the imminent departure of his cook, called up for national service, Mr. A. R. Murray, bachelor, proprietor of Torbay private hotel on Paignton sea-front, gave notice to his 14 permanent residents to leave within a week, and turned his establishment into a Services hotel.

Instead of 20 shillings daily for civilians, his charges vary from five shillings for a private room to one shilling and sixpence for a camp bed.

Murray does all the housework himself; his only accommodation in normal times was 25 guests, but by putting up camp beds in the lounge, dining-room and billiards-room, he now has as many as 40 nightly.

In Paignton, apart from the Y.M.C.A., which has a capacity of about 80 beds, there is practically nowhere else for Services personnel to put up for the night.

SLEEP—It's a problem

And the Brains Trust Can't Solve It



"It's an awfully big rat, and it only comes out when I'm in bed."

THE final Brains Trust has a Psychologist, a Doctor, a Biologist and a Philosopher asking:—

What happens when we sleep? Does our soul leave our body? Has science anything to say about it?

Doctor: "Medical science has a lot to say about sleep—far more than I could outline here. But the obvious explanation is right enough as far as it goes. That is to say, sleep is a state of fatigue in which certain parts of the brain become quiescent."

"The mechanism is a beautiful example of economy in Nature. Your muscles are overworked, and the bloodstream is congested with the products of muscular activity."

"These are chiefly lactic acid and carbon dioxide, and they get carried round in the circulation to the brain. But they are not merely poisonous waste products, they are drugs also, and they put the brain out of conscious action so as to enforce you to rest. Sleep is a mechanism of Nature to prevent a human body from completely exhausting itself."

Psychologist: "Nevertheless sleep does present some very real problems. It is true that a drug can put you to sleep, but we just don't know what actually happens when the drug begins to act. We don't know what consciousness is."

"It is merest guesswork to say that a man's soul leaves his body during sleep."

"We have no real evidence for the existence of the soul, to start with, and, as a matter of fact, of all the explanations so far proposed that is both the most naive and the most unlikely to be true. If a man leaves his body during sleep, who is it does the dreaming

when you stick a pin into his arm?"

Biologist: "It is worth remarking that sleep is a universal habit. All known creatures sleep, even the snakes and fishes, which have no eyelids and therefore cannot close their eyes. Some sleep every night, others at wider intervals."

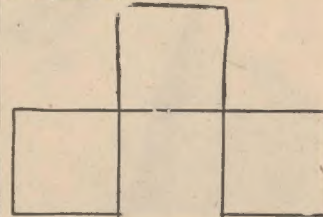
"Plants often sleep through the winter, but remain continuously active through the summer."

"Another thing worth noting is that there is no hard boundary line between sleeping and waking. They merge gradually into one another."

Philosopher: "It is rather remarkable, but I have just been reading up some interesting cases of people who do with abnormal amounts of sleep. Even if they only make confusion worse for confusion, I think they are worth mentioning."

MATCHES?

Arrange 12 matches to form 3 squares, as shown in the diagram (or draw them on a piece of paper). Can you increase the number of squares to 6 by simply adding 5 more matches (or lines)? (The squares may be of any size, provided they are made of matches (or lines) of the same length as those in the original 3 squares.)



(Answer on Page 3.)

"There was a man in Denver City in 1936 who could only sleep when standing up, for instance, and a girl at Johannesburg who went to bed in 1906 and did not wake up till 1937."

"In 1906 she was a little girl, and in 1937 she was forty-eight. She still talked baby language and wanted to play with dolls, but her legs had atrophied through lack of use, and she was unable to stand or walk."

"Another African girl slept for twenty years, and a Swedish one for thirty-two."

"In none of these cases is there any mention of feeding; one is left to suppose that the patients lived so slowly during their sleep that they did not require nourishment at all."

Doctor: "In most cases I think you would find that suitable nourishment was given regularly by a doctor, but some of them may have been cases of catalepsy."

"In catalepsy, a disease of which very little is understood, a patient may actually appear to be dead, the heart-beats and breathing being too feeble to detect by the usual methods."

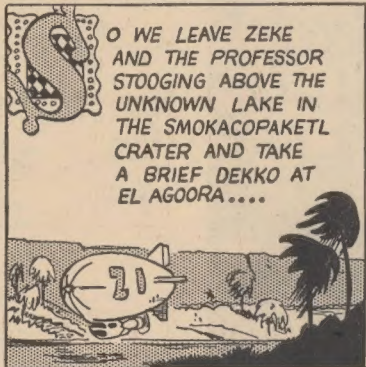
"Such patients may remain alive for remarkable periods, and it was the old fear of being buried alive while in a cataleptic trance that did so much to promote the practice of cremation."

Philosopher: "But I had some cases of the opposite kind to recount. Lord Nuffield can get only three hours' sleep every night, and Napoleon never slept for more than four. More astonishing still, a man called, I think, Kern, had had, in 1938, no sleep at all for 22 years."

Doctor: "Those are exceptional cases, of course, but it is a fact that most people have far too much sleep. If you don't get your traditional eight hours there is seldom any need to worry."

"Indeed, worry about loss of sleep is far worse than the loss of sleep itself."

BEELZEBUB JONES



O WE LEAVE ZEKE AND THE PROFESSOR STOOING ABOVE THE UNKNOWN LAKE IN THE SMOKACOPAKETL CRATER AND TAKE A BRIEF DEKKO AT EL AGOORA....



WHAT SORT OF GOVERNMENT WAS YUH FIGURING ON CONSTITUTING IN ESCADORIA, SHERIFF?



WHY-I WUS FIGURING ON A SORTA LIMITED MONARCHY - YUH KNOW WIT' A KING!



NO! NO! WE DON'T WANT NO RURITANIA'S IN SOUT' AMERICA... WHAT WE NEEDS IS MORE CO-OPERATIVE DEMOCRACIES!

BELINDA



KITTY'S A LONG TIME AT THAT MISSION HALL, DUCKS! YEAH, SHE'S HELPING MR. STRAIGHT DO THE ACCOUNTS! I GUESS IT'S HER NEW YEAR RESOLUTION!



WOTSAY WE GO ALONG AN' FETCH HER 'OME, BLINDA?—IT AINT SAFE FOR HER TO BE IN THE STREETS AFTER DARK WIV THE BOMB ALLEY BOYS ON THE PROWL!



MEANWHILE... WHY THE DEEP SIGH, KITTY?—IS IT TOUGH GOING?



NO-FIGURES IS EASY TO ME, MR STRAIGHT!—BUT YOU CAN'T GET AWAY FROM IT—YOUR BOOKS WONT BALANCE! THE CLUB'S JUST NOT PAYING ITS WAY!

POPEYE



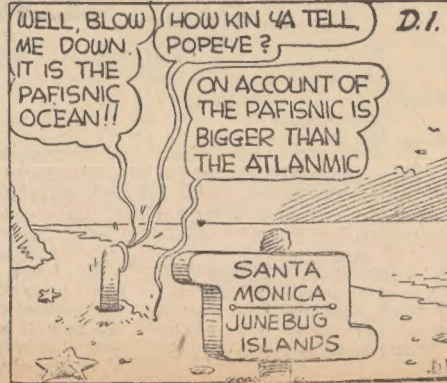
PREPARE TO CRASH-DIVE!!



SMACK



OKAY NOW — UP PERISCOPE AGIN



WELL, BLOW ME DOWN. IT IS THE PAFISNIC OCEAN!!

HOW KIN YA TELL POPEYE?

ON ACCOUNT OF THE PAFISNIC IS BIGGER THAN THE ATLANMIC

SANTA MONICA JUNEBUG ISLANDS

WANGLING WORDS—482

- 1. Put a fairy in DT and get a kind of china.
- 2. Rearrange the following letters to make four common flowers: HIDALA, LULLEBEB, RUSCOC, PRODSWON.
- 3. In the following four English counties the same number stands for the same letter throughout. What are they?
5941263P19502147, 1751,
874102147, 59412U3874L65D.

Answers to Wangling Words—No. 481

- 1. Learn.
- 2. OVERCOAT, TROUSERS, STOCKINGS, DUNGAREES.
- 3. Trent, Tyne, Wye, Wear, Tees.

JANE



THREE-TREASURE ISLAND

It's yours—If you can find it. Uncounted Millions, Gold, Precious Gems. The loot of the ages. Described by RUSSELL SINCLAIR

AFTER the war ends, quite a number of expeditions will set out from this country to seek buried treasure. This is not fictional romance. It is hard fact, and the treasure-seekers are not gullible people, but practical men.

One by one I shall tell you of a few of these buried millions, and will begin with the £12,000,000 that lies on Cocos Isle.

Some years ago, Sir Malcolm Campbell, the famous racing motorist, with several companions, went after this sunken wealth. He is convinced that it is there, and he may go back again. With him in the search was K. Lee Guinness, also a racing motorist.

PIRATES THREE. First the proof that the wealth exists.

There are really three hoards on Cocos Isle. The first was that of Captain Davis, the buccaneer, partner with Dampier, who sacked the city of Leon, in Nicaragua, in 1685.

The second is the loot of

Lima, the vast number of solid gold and silver ornaments and plate from the banks. In those days the merchants of Lima used gold and precious metal as we use electro-plate. Lima was the capital of Peru; and during a revolution the riches were sent on board a ship commanded by Captain Thompson, who killed the owners and buried the treasure on Cocos.

The third hoard belonged to Benito Bonito, the pirate of the 18th century, who landed his ill-gotten gains.

He used the old pirate dodge of killing the men who had buried the stuff. Benito was called "Bonito of the Bloody Sword."

Old charts are in existence showing the cache. One was in the possession of a Newfoundland sea captain in 1844. It was this chart that helped Sir Malcolm Campbell to go after the cache.

According to this chart, the hiding place was forty paces from high-water mark in what is now known as Chatham Bay. It was there that the Camp-

bell expedition went. Space forbids the relation of the search, the wading through breast-high water where sharks abounded, the climbing of rocks and knolls.

Rocks were blasted, holes were dug, and the ruins of an old stone house were discovered, and an overgrown path leading to a cave.

For days the adventurers dug and hacked with bush knives. On the face of the cliff they found a walled-in rampart. It looked like the entrance to the cave.

This spot was on the east side of Observation Hill, and was according to the chart, before this one, but the treasure found a ledge of stones, ure is still there

carefully built, and behind the ledge a mass of loose rocks and stones, then a stone path.

AND THERE IT BE. They dug inward, but stones came thundering down from the top and they had to stop. They found later that the ledge was the entrance to a lost Inca temple, of which there are many on the isle.

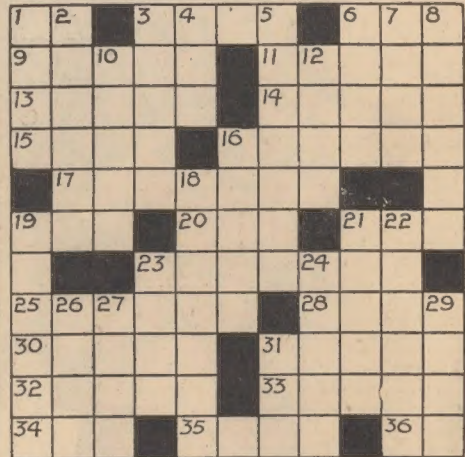
But they were forced to give up. The weather broke, and it was impossible for their ship to remain on that dangerous coast.

"We struck camp," said Campbell later, "but were defeated on what I believe was the verge of success. One day someone will explore Cocos thoroughly and startle the world."

There were other expeditions before this one, but the treasure found a ledge of stones, ure is still there

CROSSWORD CORNER

CLUES ACROSS. 1 Long ago.



- 3 Gull.
- 6 Horse.
- 9 Weapon.
- 11 Form.
- 13 Constellation.
- 14 Girl's name.
- 15 Warbler.
- 16 Send hurriedly.
- 17 Floating mass.
- 19 Golf mound.
- 20 Drink.
- 21 Pungent.
- 23 Knocked down.
- 25 Existence.
- 28 Abandoned child.
- 30 Colour.
- 31 Glad song.
- 32 Piece of fuel.
- 33 Excessive.
- 34 Ocean.
- 35 Channel.
- 36 Direction.

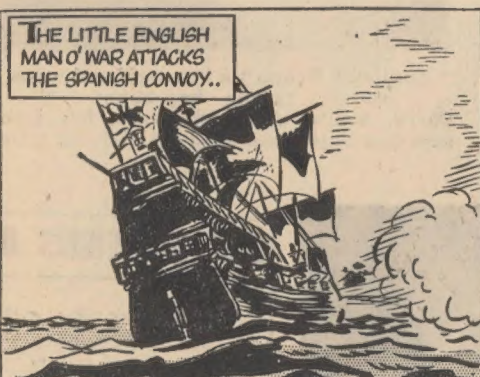
- CLUES DOWN.
- 1 Hard stroke.
 - 2 Girl's name.
 - 3 Soft cake.
 - 4 Range of sight.
 - 5 Satisfies.
 - 6 Thick paper.
 - 7 Precious stone.
 - 8 Command.
 - 10 Relation.
 - 12 Suspend.
 - 16 Stop at sea.
 - 18 Exchanges.
 - 19 Subjects.
 - 21 Listened to.
 - 22 Hateful.
 - 23 Administer.
 - 24 Swagger.
 - 26 Appellation.
 - 27 Wind instrument.
 - 29 Fluttered.
 - 31 Dog.

DOWN CLAD
ERIN ADHERE
BOA OPIATES
TUMBLERS AI
TOED ETC R
BEND ELSE
R DEW ANON
IF CANISTER
DUSKIER HEY
GREENS HERD
EYED SAID E

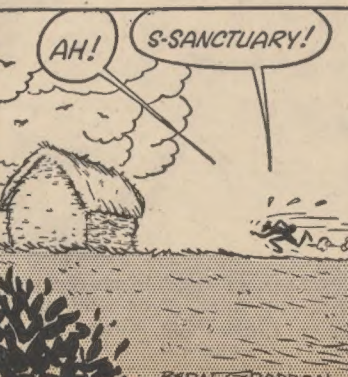
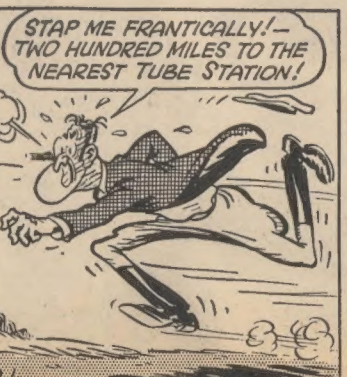
RUGGLES



GARTH



JUST JAKE



Argue This Out

AGE. WHAT is the first thing that strikes me, now that I have well passed three-score-years-and-ten? Perhaps it is that the world, and the people of the world, and books and pictures and music all seem to me much more interesting than they have ever seemed before. Towards other people, old and young, of both sexes, I feel much kinder, much more understanding, much more sympathetic, much more tolerant, than I used to be when I was younger. Some of each of them, of course, frankly bore me; but even the most tedious I cannot hate. I can only shrug my shoulders and say, "Not for me."

Harry Roberts.

ADVERTISING.

ADVERTISING has for many years ceased to be merely a domestic and national instrument. It is a power of international significance, overleaping the boundaries of frontiers and language, carrying its message from Edinburgh to Chungking.

Sir William Crawford.

WOMEN M.P.s.

REASONABLE people will readily admit that the advent of women into the House of Commons has at any rate done no harm; but nothing worth while can be built on negatives, and the really important question is whether they have made any positive contributions, above all, whether our beloved country is the better for their presence at Westminster?

Ethel M. Wood.

THE POLITICIAN.

IT is too often overlooked that the Government, that is, the executive body or machine in control of our destinies, is not the Crown Services, civil or military, but the Cabinet, which is made up exclusively of politicians (whom, by the way, we humble folk elect). When, as an Englishman, I get fed up with being jiggered about and lose my temper with my immediate persecutor, I forget that the ultimate author of my woes is the politician, and therefore, at some removes, myself as an elector.

Sir Warren Fisher.

ALEX CRACK

After a vain effort to assassinate Hitler in Munich, butchers there displayed the following sign:— "There will, unfortunately, be no lard or dripping to-day, as the swine was not killed yesterday."

Good
Morning

Neutral Sweden Invaded!
Hordes of wild-eyed

Jitterbugs

capture Dance
Hall. Mopping-up
operations in progress!



Seems Sweden's fallen heavily for the Jitterbug craze. Here's a page of "battle" pictures. Our Jitterbug Editor has written the captions, so if you can't understand them don't blame us. We can't either! Every time we asked her what "hep" meant she replied, "Beat me, Daddy, eight to a bar." Finally, we accepted.



"You're strictly the kind of dig-me-devil dish that makes a hep-wolf cry: 'Hey, Squirrel, let's twirrel.' You got me swooning to be wooing you. Woo-woo!"



"A bundle bunny strictly in the groove. A wolverine with a rusty-dusty that's hep."



"Hep cats go solid in the groove as the slip horn gives—and gives. They're rug-cutting busier 'n all get out."



"WOO-WOO, you're strictly a drool cup. You're a slick chick with a frame that zoot and root and solid to boot."



"Zoot-suit Poppa's a hep-wolf and woos his ransey tansey hep-bunny— Sorry, wolves and wolverines, the Editor says this must stop—and his decision is final."

OUR CAT SIGNS OFF

"If ever she calls me a hep-cat, I'll 'do' her."

